

Serial No. 09/683,780
Attorney Docket No. 56162.000362

REMARKS

Introduction

The Office Action dated September 9, 2003 has been received and carefully considered. Claims 1-44 are pending in the present application. Claims 1-44 stand rejected. In this response, the specification and claims 1, 8 and 28 have been amended. The amendments to the specification and the claims were made solely to improve their form, readability and/or clarity and were not made to distinguish the claimed subject matter over the cited references. Support for the amendments to the specification and the claims can be found in the original claims, drawings and specification. No new matter is presented by the amendments to the specification and the claims. Accordingly, Applicants respectfully request entry thereof and reconsideration of the pending claims in view of the following remarks.

Anticipation Rejection of Claims 1, 4-8, 12, 13, 16-18, 22, 23, 26-28, 32, 33, 36-38, 42 and 43

At page 2 of the Office Action, claims 1, 4-8, 12, 13, 16-18, 22, 23, 26-28, 32, 33, 36-38, 42 and 43 were rejected under 35 U.S.C. § 102(b) as being anticipated by Marisetty et al. (U.S. Patent No. 5,792,598). This rejection is hereby respectfully traversed.

Under 35 U.S.C. § 102, the Patent Office bears the burden of presenting at least a prima facie case of anticipation. In re Sun, 31 USPQ2d 1441, 1453 (Fed. Cir. 1993) (unpublished). Anticipation requires that a prior art reference disclose, either expressly or under the principles of inherency, each and every element of the claimed invention. Id. "In addition, the prior art reference must be enabling." Akzo N.V. v. U.S. International Trade Commission, 808 F.2d 1471, 1479, 1 USPQ2d 1241, 1245 (Fed. Cir. 1986), cert. denied, 482 U.S. 909 (1987). That is, the prior art reference must sufficiently describe the claimed invention so as to have placed the public in possession of it. In re Donohue, 766 F.2d 511, 533, 226 USPQ 619, 621 (Fed. Cir. 1985). "Such possession is effected if one of ordinary skill in the art could have combined the publication's description of the invention with his own knowledge to make the claimed invention." Id.

With regard to independent claims 1, 13, 25 and 33, the Examiner asserts that Marisetty discloses a method, apparatus and system comprising connecting a first circuit component to a

Serial No. 09/683,780
Attorney Docket No. 56162.000362

GPIO line; connecting a second circuit component to the GPIO line concurrently with the first component; wherein the first circuit component is to provide input to the integrated circuit using the GPIO line during a first time; and wherein the second circuit component is to receive an output from the integrated circuit using the GPIO line during a second time. (Office Action, pp. 2-3). In support of this assertion, the Examiner cites column 5, lines 48-54 and figure elements 104A, 104B and 112 of Marisetty.

In establishing the alleged relevancy of Marisetty to the present invention, the Examiner refers to element 112 of Marisetty as "GPIO line 112" at page 2 of the Office Action. Applicants respectfully submit that the Examiner's description of element 112 as a GPIO line is inconsistent with both the disclosure of Marisetty and the knowledge of one of ordinary skill in the art. Marisetty refers to element 112 as "bus" 112 (e.g., I/O devices 104A-104C are coupled to shared logic block 103A in PGA 103 via shared bus 112", Marisetty, col. 4, lines 38-39). In discussing bus 112, Marisetty discloses that: "I/O devices 104A-C share a set of external bus lines 112. These external bus lines may include address, data and control lines." (Marisetty, col. 5, lines 37-39)(emphasis added). Marisetty's description of the bus 112 as a plurality of lines for both addressing and data transmission is consistent with the conventional use of the term "bus." To illustrate, the online encyclopedia Wikipedia defines a bus as "[a] collection of wires through which data is transmitted from one part of a computer to another. ... All buses consist of two parts — an address bus and a data bus. The data bus transfers actual data whereas the address bus transfers information about where the data should go." (<http://www.wikipedia.com/TERM/b/bus.html>)(emphasis added). Similarly, the online dictionary TechDictionary.com defines a bus as "[a] set of conductors which connect the functional units in a computer..." (<http://www.techdictionary.com/>)(emphasis added).

Thus, a bus, in conventional use and as described by Marisetty, includes a plurality of lines used to connect I/O devices, where the bus includes both address lines for addressing and data lines for communicating data. In contrast, a GPIO line includes a single line used by an integrated circuit (IC) to either input or output a signal. Thus, while the addressing capability provided by the address lines of a bus allow multiple I/O devices to share the data lines of the bus, it will be appreciated that a GPIO line, being a single line, lacks means for addressing,

Serial No. 09/683,780
Attorney Docket No. 56162.000362

thereby conventionally preventing the operation of more than one I/O devices on the GPIO line. The present invention, as claimed, addresses and solves this limitation.

As noted above, the shared bus 112 disclosed by Marisetty is not a GPIO line. Further, Marisetty does not teach, disclose, or motivate the sharing of a GPIO line by two or more I/O devices nor does Marisetty disclose any use of a GPIO line. Accordingly, because Marisetty fails to teach, disclose, or suggest, alone or in combination with the remaining cited references, each and every limitation of independent claims 1, 13, 23 and 33, Applicants respectfully submit that Marisetty fails to anticipate independent claims 1, 13, 23 and 33.

Claims 2-12 are dependent upon independent claim 1, claims 14-22 are dependent on independent claim 13, claims 24-32 are dependent on independent claim 23 and claims 34-44 are dependent on independent claim 33. Thus, since independent claims 1, 13, 23 and 33 should be allowable as discussed above, claims 2-12, 14-22, 24-32 and 34-44 should also be allowable at least by virtue of their dependency on one of independent claims 1, 13, 23 or 33.

In view of the foregoing, Applicants respectfully submit that the aforementioned anticipation rejection of claims 1, 4-8, 12, 13, 16-18, 22, 23, 26-28, 32, 33, 36-38, 42 and 43 is obviated, and respectfully request the withdrawal of such rejection.

Obviousness Rejection of Claims 9-11, 19-21, 29-31 and 39-41

At page 4 of the Office Action, claims 9-11, 19-21, 29-31 and 39-41 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Marisetty et al. in view of Applicants' admitted prior art (AAPA). This rejection is hereby respectfully traversed.

The Examiner asserts that although not disclosed by Marisetty, the use of switches, light emitting diodes (LEDs) and inverters on GPIO lines is well known because the use of such is allegedly described in the Background section of the present application. The Examiner therefore concludes that it would have been obvious to one of ordinary skill in the art to modify the teachings of Marisetty to arrive at the invention as claimed by claims 9-11, 19-21, 29-31 and 39-41. This rejection is hereby respectfully traversed.

As noted above, the prior art references cited by the Examiner fail to disclose, teach or suggest, alone or in combination, all of the claimed limitations of independent claims 1, 13, 23,

Serial No. 09/683,780
Attorney Docket No. 56162.000362

and 33 from which claims 9-11, 19-21, 29-31 and 39-41 respectively depend. Accordingly, dependent claims 9-11, 19-21, 29-31 and 39-41 should be allowable at least by virtue of their dependency on one of independent claims 1, 13, 23 or 33.

In view of the foregoing, Applicants respectfully submit that the aforementioned obviousness rejection of claims 9-11, 19-21, 29-31 and 39-41 is obviated, and respectfully request the withdrawal of such rejection.

Obviousness Rejection of Claims 2, 3, 14, 15, 24, 25, 34, 35 and 44

At page 5 of the Office Action, claims 2, 3, 14, 15, 24, 25, 34, 35 and 44 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Maris et al. in view of Amrany et al. (U.S. Patent No. 6,580,752). This rejection is hereby respectfully traversed.

The American Inventors Protection Act of 1999 amended 35 U.S.C. § 103(c) to prevent subject matter that qualifies as prior art under 35 U.S.C. § 102(e) from precluding patentability where the subject matter and the claimed invention were, at the time the invention was made, owned by the same entity or subject to an obligation of assignment to the same entity. Applicants hereby declare that the claimed invention and the invention of Amrany were owned by the same entity and subject to an obligation of assignment to the same entity, namely GlobespanVirata, Inc. of Redbank, New Jersey, at the times the respective inventions were made. Accordingly, Applicants respectfully submit that Amrany does not qualify as applicable prior art under 35 U.S.C. § 102(e) in view of 35 U.S.C. § 103(c) as amended.

Further, as noted above, the prior art references cited by the Examiner fail to disclose, teach or suggest, alone or in combination, all of the claimed limitations of independent claims 1, 13, 23, and 33 from which claims 2, 3, 14, 15, 24, 25, 34, 35 and 44 respectively depend. Accordingly, dependent claims 2, 3, 14, 15, 24, 25, 34, 35 and 44 should be allowable at least by virtue of their dependency on one of independent claims 1, 13, 23 or 33.

In view of the foregoing, Applicants respectfully submit that the aforementioned obviousness rejection of claims 2, 3, 14, 15, 24, 25, 34, 35 and 44 is obviated, and respectfully request the withdrawal of such rejection.

Serial No. 09/683,780
Attorney Docket No. 56162.000362

Conclusion

In view of the foregoing, Applicants respectfully submit that the present application is in condition for allowance and earnestly solicit notice to that effect. The Examiner is invited to contact the undersigned at the below listed telephone number to expedite resolution of any issues or to address any comments, questions, or suggestions that may arise in connection with the present application.

To the extent necessary, a petition for an extension of time under 37 C.F.R. § 1.136 is hereby made. Please charge any shortage in fees due in connection with the filing of this paper, including extension of time fees, to Deposit Account No. 50-0206, and please credit any excess fees to the same deposit account.

Respectfully submitted,
HUNTON & WILLIAMS LLP

Date: October 7, 2003

By: 

Ryan S. Davidson
Registration No. 51,596
On Behalf Of
Kevin T. Duncan
Registration No. 41,495

RSD/cyc

Hunton & Williams LLP
1900 K Street, N.W.
Washington, D.C. 20006-1109
Telephone: (202) 955-1500
Facsimile: (202) 778-2201